

**What is claimed is:**

1. A method comprising:
  - operating a simulated organ;
  - obtaining biological measurement data for a user;
  - selecting an operational mode for the simulated organ such that an output signal produced by the simulated organ matches the biological measurement data; and
  - deducing a condition of the user, wherein deducing takes into account the selected operational mode.
2. The method of claim 1, wherein the simulated organ is personalized to model specificities of an actual organ of the user.
3. The method of claim 1, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ shares one or more characteristics with the biological measurement data.
4. The method of claim 3, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ is like that of a reduced lead set electrocardiogram reading.
5. The method of claim 1, wherein the simulated organ is simulated at a wireless node.
6. The method of claim 1, wherein the simulated organ is simulated at a server.

7. The method of claim 1, wherein a plurality of organs are simulated.
8. The method of claim 7, wherein a thorax is simulated.
9. The method of claim 1, wherein the condition corresponds to an abnormal state.
10. The method of claim 9, wherein the abnormal state relates to an organ of the user.
11. The method of claim 10, wherein the simulated organ simulates the organ of the user.
12. The method of claim 9, wherein the abnormal state is arrhythmia.
13. The method of claim 9, wherein the abnormal state is a conduction disorder.
14. The method of claim 9, wherein the abnormal state an endocrine disorder.
15. The method of claim 1, wherein the deduced condition corresponds to a normal state.
16. The method of claim 15, wherein the normal state corresponds to an organ of the user.
17. The method of claim 16, wherein the simulated organ simulates the organ of the user.
18. The method of claim 1, wherein preprocessing is performed on the biological measurement

data.

19. The method of claim 1, wherein the simulated organ simulates a heart.
20. The method of claim 1, wherein the simulated organ simulates a pancreas.
21. The method of claim 1, wherein the simulated organ simulates a brain.
22. The method of claim 1, wherein one or more sensors are employed in obtaining the biological measurement data.
23. The method of claim 22, wherein one or more of the sensors are electrocardiogram sensors.
24. The method of claim 23, wherein six electrocardiogram sensors are employed.
25. The method of claim 23, wherein three electrocardiogram sensors are employed.
26. The method of claim 22, wherein one or more of the sensors are electroencephalogram sensors.
27. The method of claim 22, wherein one or more of the sensors are molecular sensors.
28. The method of claim 22, wherein one or more of the sensors are ionic concentration sensors.

29. The method of claim 1, wherein waveform comparison is employed.
30. The method of claim 1, wherein the user is informed of the deduced condition.
31. The method of claim 1, wherein one or more servers are informed of the deduced condition.
32. The method of claim 1, wherein a plurality of operational modes for the simulated organ are iteratively selected.
33. The method of claim 1, wherein a body system is simulated.
34. The method of claim 33 wherein an endocrine system is simulated.
35. The method of claim 33 wherein a renal system is simulated.
36. The method of claim 33 wherein a cardiopulmonary system is simulated.
37. A method comprising:
  - operating a simulated organ;
  - obtaining biological measurement data for a user; and
  - comparing an output signal produced by the simulated organ with the biological measurement data,

wherein the simulated organ is personalized to model specificities of an actual organ of the user.

38. The method of claim 37, further comprising determining the output signal produced by the simulated organ to deviate from the biological measurement data.

39. The method of claim 37, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ shares one or more characteristics with the biological measurement data.

40. The method of claim 39, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ is like that of a reduced lead set electrocardiogram reading.

41. The method of claim 37, wherein the simulated organ is simulated at a wireless node.

42. The method of claim 37, wherein the simulated organ is simulated at a server.

43. The method of claim 37, wherein a plurality of organs are simulated.

44. The method of claim 43, wherein a thorax is simulated.

45. The method of claim 37, wherein preprocessing is performed on the biological measurement data.

46. The method of claim 37, wherein the simulated organ simulates a heart.
47. The method of claim 37, wherein the simulated organ simulates a pancreas.
48. The method of claim 37, wherein the simulated organ simulates a brain.
49. The method of claim 37, wherein one or more sensors are employed in obtaining the biological measurement data.
50. The method of claim 49, wherein one or more of the sensors are electrocardiogram sensors.
51. The method of claim 50, wherein six electrocardiogram sensors are employed.
52. The method of claim 50, wherein three electrocardiogram sensors are employed.
53. The method of claim 49, wherein one or more of the sensors are electroencephalogram sensors.
54. The method of claim 49, wherein one or more of the sensors are molecular sensors.
55. The method of claim 49, wherein one or more of the sensors are ionic concentration sensors.

56. The method of claim 37, wherein waveform comparison is employed.
57. The method of claim 37, wherein a plurality of operational modes for the simulated organ are iteratively selected.
58. The method of claim 37, wherein a body system is simulated.
59. The method of claim 58 wherein an endocrine system is simulated.
60. The method of claim 58 wherein a renal system is simulated.
61. The method of claim 58 wherein a cardiopulmonary system is simulated.
62. The method of claim 37, further comprising deducing a condition of the user.
63. A system comprising:
  - a memory having program code stored therein; and
  - a processor disposed in communication with the memory for carrying out instructions in accordance with the stored program code;
  - wherein the program code, when executed by the processor, causes the processor to perform:
    - operating a simulated organ;
    - obtaining biological measurement data for a user;

selecting an operational mode for the simulated organ such that an output signal produced by the simulated organ matches the biological measurement data; and  
deducing a condition of the user, wherein deducing takes into account the selected operational mode.

64. The system of claim 63, wherein the simulated organ is personalized to model specificities of an actual organ of the user.

65. The system of claim 63, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ shares one or more characteristics with the biological measurement data.

66. The system of claim 65, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ is like that of a reduced lead set electrocardiogram reading.

67. The system of claim 63, wherein the simulated organ is simulated at a wireless node.

68. The system of claim 63, wherein the simulated organ is simulated at a server.

69. The system of claim 63, wherein a plurality of organs are simulated.

70. The system of claim 69, wherein a thorax is simulated.

71. The system of claim 63, wherein the condition corresponds to an abnormal state.
72. The system of claim 71, wherein the abnormal state relates to an organ of the user.
73. The system of claim 72, wherein the simulated organ simulates the organ of the user.
74. The system of claim 71, wherein the abnormal state is arrhythmia.
75. The system of claim 71, wherein the abnormal state is a conduction disorder.
76. The system of claim 71, wherein the abnormal state is an endocrine disorder.
77. The system of claim 63, wherein the deduced condition corresponds to a normal state.
78. The system of claim 77, wherein the normal state corresponds to an organ of the user.
79. The system of claim 78, wherein the simulated organ simulates the organ of the user.
80. The system of claim 63, wherein preprocessing is performed on the biological measurement data.
81. The system of claim 63, wherein the simulated organ simulates a heart.

82. The system of claim 63, wherein the simulated organ simulates a pancreas.
83. The system of claim 63, wherein the simulated organ simulates a brain.
84. The system of claim 63, wherein one or more sensors are employed in obtaining the biological measurement data.
85. The system of claim 84, wherein one or more of the sensors are electrocardiogram sensors.
86. The system of claim 85, wherein six electrocardiogram sensors are employed.
87. The system of claim 85, wherein three electrocardiogram sensors are employed.
88. The system of claim 84, wherein one or more of the sensors are electroencephalogram sensors.
89. The system of claim 84, wherein one or more of the sensors are molecular sensors.
90. The system of claim 84, wherein one or more of the sensors are ionic concentration sensors.
91. The system of claim 63, wherein waveform comparison is employed.
92. The system of claim 63, wherein the user is informed of the deduced condition.

93. The system of claim 63, wherein one or more servers are informed of the deduced condition.

94. The system of claim 63, wherein a plurality of operational modes for the simulated organ are iteratively selected.

95. The system of claim 63, wherein a body system is simulated.

96. The system of claim 95 wherein an endocrine system is simulated.

97. The system of claim 95 wherein a renal system is simulated.

98. The system of claim 95 wherein a cardiopulmonary system is simulated.

99. A system comprising:

a memory having program code stored therein; and

a processor disposed in communication with the memory for carrying out instructions in accordance with the stored program code;

wherein the program code, when executed by the processor, causes the processor to perform:

operating a simulated organ;

obtaining biological measurement data for a user; and

comparing an output signal produced by the simulated organ with the biological

measurement data,

wherein the simulated organ is personalized to model specificities of an actual organ of the user.

100. The system of claim 99, wherein the processor further performs determining the output signal produced by the simulated organ to deviate from the biological measurement data.

101. The system of claim 99, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ shares one or more characteristics with the biological measurement data.

102. The system of claim 101, wherein the simulated organ is calibrated such that the output signal produced by the simulated organ is like that of a reduced lead set electrocardiogram reading.

103. The system of claim 99, wherein the simulated organ is simulated at a wireless node.

104. The system of claim 99, wherein the simulated organ is simulated at a server.

105. The system of claim 99, wherein a plurality of organs are simulated.

106. The system of claim 105, wherein a thorax is simulated.

107. The system of claim 99, wherein preprocessing is performed on the biological measurement data.

108. The system of claim 99, wherein the simulated organ simulates a heart.

109. The system of claim 99, wherein the simulated organ simulates a pancreas.

110. The system of claim 99, wherein the simulated organ simulates a brain.

111. The system of claim 99, wherein one or more sensors are employed in obtaining the biological measurement data.

112. The system of claim 111, wherein one or more of the sensors are electrocardiogram sensors.

113. The system of claim 112, wherein six electrocardiogram sensors are employed.

114. The system of claim 112, wherein three electrocardiogram sensors are employed.

115. The system of claim 111, wherein one or more of the sensors are electroencephalogram sensors.

116. The system of claim 111, wherein one or more of the sensors are molecular sensors.

117. The system of claim 111, wherein one or more of the sensors are ionic concentration sensors.

118. The system of claim 99, wherein waveform comparison is employed.

119. The system of claim 99, wherein a plurality of operational modes for the simulated organ are iteratively selected.

120. The system of claim 99, wherein a body system is simulated.

121. The system of claim 120 wherein an endocrine system is simulated.

122. The system of claim 120 wherein a renal system is simulated.

123. The system of claim 120 wherein a cardiopulmonary system is simulated.

124. The system of claim 99, wherein the processor further performs deducing a condition of the user.

125. An article of manufacture comprising a computer readable medium containing program code that when executed causes a wireless terminal to perform:

operating a simulated organ;

obtaining biological measurement data for a user;

selecting an operational mode for the simulated organ such that an output signal produced by the simulated organ matches the biological measurement data; and  
deducing a condition of the user, wherein deducing takes into account the selected operational mode.

126. An article of manufacture comprising a computer readable medium containing program code that when executed causes a wireless terminal to perform:

operating a simulated organ;  
obtaining biological measurement data for a user; and  
comparing an output signal produced by the simulated organ with the biological measurement data,  
wherein the simulated organ is personalized to model specificities of an actual organ of the user.